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Attorney Docket No. S63.2N-5605-US04

Status of the Claims:

Claims 1-35. (Canceled)

Claim 36. (Currently amended) A stent comprising:

a plurality of adjacent undulating circumferential bands, each of the undulating circumferential bands consisting of a plurality of interconnected struts, each strut having a first end and a second end, ~~only at the ends of the struts are adjacent struts connected together at only one end of the struts,~~ at the first end each strut connected only to one adjacent strut and at the second end each strut connected only to one adjacent strut, each of the undulating circumferential bands having a proximal end region and a distal end region, the proximal end region and the distal end region each having a plurality of end portions where adjacent struts are interconnected; and

a plurality of connecting elements, each connecting element joining end portions of adjacent undulating circumferential bands, each connecting element extending from only a single location on each of the adjacent undulating circumferential bands, wherein the end portions of the adjacent undulating circumferential bands which are joined to one another are not longitudinally opposite one another, some of the undulating bands having connecting elements extending from the proximal end region and the distal end region.

Claim 37. (Previously presented) The stent of claim 36 wherein the interconnected struts having a length, the length of the struts of the undulating circumferential bands at each end of the stent being different than the length of the struts of the undulating circumferential bands positioned therebetween.

Claim 38. (Currently amended) The stent of claim 36 wherein the struts each undulating circumferential band comprises a pattern of interconnected struts, the pattern of at least one circumferential band being different than the pattern are longer than the struts of an adjacent undulating circumferential band bands.

Claim 39. (Previously presented) The stent of claim 36 wherein the stent is expandable from an unexpanded state to an expanded state and each undulating circumferential band comprises a pattern of interconnected struts, in the unexpanded state at least a portion of the interconnected struts being parallel to one another.

Claim 40. (Previously presented) The stent of claim 36 constructed and arranged to be self-

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expanding.

Claim 41. (Previously presented) The stent of claim 36 constructed and arranged to be balloon expandable.

Claim 42. (Previously presented) The stent of claim 36 wherein the stent is constructed from a shape memory material.

Claim 43. (Currently amended) ~~A stent comprising:~~

~~a plurality of adjacent undulating circumferential bands, each of the undulating circumferential bands consisting of a plurality of interconnected struts, each strut having a first end and a second end, only as the ends are adjacent struts connected together, at the first end each strut connected only to one adjacent strut and at the second end each strut connected only to one adjacent strut, each of the undulating circumferential bands having a plurality of end portions; and~~

~~a plurality of connectors, each connector joining two adjacent undulating circumferential bands, each connector having a first end and a second end and a portion extending at an oblique angle relative to a longitudinal axis of the stent, the first end extending from a single end portion of one of the undulating circumferential bands, the second end extending from a single end portion of a undulating circumferential band adjacent thereto.~~

The stent of claim 36 wherein the end portions of adjacent undulating circumferential bands are not longitudinally opposite one another.

Claim 44. (Previously presented) The stent of claim 43 wherein the interconnected struts having a length, the length of the struts of the undulating circumferential bands at each end of the stent being different than the length of the struts of the undulating circumferential bands positioned therebetween.

Claim 45. (Currently amended) The stent of claim 43 wherein the struts ~~each undulating circumferential band comprises a pattern of interconnected struts, the pattern of at least one circumferential band being different~~ are longer ~~than the pattern struts of an adjacent undulating circumferential band~~ bands.

Claims 46-56. (canceled)

Claim 57. (currently amended) ~~The stent of claim 50~~ A tubular, flexible, expandable stent having a proximal end and a distal end and comprising:

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a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body, each segment having a proximal end and a distal end, each segment being defined by an undulating pattern of interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of adjacent struts on one segment to a circumferentially offset interconnected end of adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end offset in a circumferential direction and in a longitudinal direction from the proximal end;

the stent including cylindrical shaped segments which have interconnecting elements extending from the distal end of the segment and from the proximal end of the segment, each interconnecting element which extends from the distal end of the segment connected to an interconnecting element which extends from the proximal end of the segment via three struts of the segment;

wherein the stent further includes including end segments and intermediate segments, each of the struts of the end segments being longer than the struts of the intermediate segments of the stent;

whereby, upon expansion of the stent, struts of adjacent segments are displaced relative to each other about the periphery of the stent body to accommodate longitudinal flexing of the stent within the segments and without interference between adjacent segments.

Claims 58-66. (canceled)

Claim 67. (Previously presented) A substantially cylindrically shaped stent having a longitudinal axis,

the stent comprising a plurality of closed undulating segments, the undulating segments extending circumferentially about the stent,

each undulating segment having a first end and a second end, the first end characterized by a plurality of end portions separated by gaps, the second end characterized by a plurality of end portions separated by gaps, the gaps on the first end circumferentially offset from the gaps on the second end and the end portions on the first end circumferentially offset from the

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end portions on the second end,

one of the undulating segments located at a first end of the stent having a plurality of interconnecting elements extending from one end of the segment only to a segment adjacent thereto and one of the undulating segments located at a second end of the stent having a plurality of interconnecting elements extending from one end of the undulating segment only to an undulating segment adjacent thereto,

there being a plurality of intermediate undulating segments which are located between the segments at the first and second ends of the stent, each intermediate undulating segment having interconnecting elements extending from the first and second ends of the intermediate undulating segments, the interconnecting elements extending from less than all of the end portions at both ends of the intermediate undulating segments,

each interconnecting element extending from an end portion of an undulating segment to an end portion of an undulating segment adjacent thereto,

each interconnecting element having a proximal end and a distal end, the distal end being offset in both a circumferential direction and a longitudinal direction from the proximal end.

Claims 68-78. (Canceled)

Claim 79. (Currently amended) The stent of claim 68 ~~84~~ wherein each interconnecting element is substantially straight.

Claim 80. (Currently amended) The stent of claim ~~77~~ ~~84~~ wherein the stent further includes end segments and intermediate segments and the end segments of the stent include longer struts than the intermediate segments of the stent.

Claims 81-82. (canceled)

Claim 83. (Currently amended) The stent of claim ~~77~~ ~~84~~ comprising interconnecting elements which are circumferentially adjacent one another and are separated from one another by six struts on each of the cylindrical shaped segments from which they extend.

Claim 84. (Currently amended) A tubular, flexible, expandable stent having a proximal end and a distal end and a sidewall with a plurality of openings therethrough, the stent comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body, each segment being defined by an undulating pattern of

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interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of circumferentially adjacent struts on one segment to an interconnected end of circumferentially adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end circumferentially and longitudinally offset from the proximal end;

the stent including cylindrical shaped segments having at least three struts extending between each interconnecting element extending distally from the cylindrical shaped segment and the nearest interconnecting element extending proximally from the cylindrical shaped segment, ~~interconnecting elements which are circumferentially adjacent one another separated from one another by six struts on each of the cylindrical shaped segments from which they extend~~

wherein each of the openings in the sidewall is bounded by two interconnecting elements and portions of two different adjacent cylindrical shaped segments.

Claims 85-88. (canceled)

Claim 89. (New) A tubular, flexible, expandable stent, comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis, each segment having a proximal end and a distal end and being defined by a member formed in a closed undulating pattern of interconnected struts, circumferentially adjacent struts interconnected at only one end of the struts at an interconnected end portion and

a plurality of interconnecting elements each extending from one segment to an adjacent segment, some of the segments having interconnecting elements extending from the distal end of the segment and from the proximal end of the segment, the interconnecting elements which extend from the distal end of the segment connected to the interconnecting elements which extend from the proximal end of the segment via three struts of the segment,

each interconnecting element extending from one interconnected end portion of one segment to another interconnected end portion of another adjacent segment but not to an oppositely positioned end portion of an adjacent segment.

Claim 90. (New) A substantially cylindrically shaped stent having a longitudinal axis,

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the stent comprising a plurality of closed undulating segments, the undulating segments extending circumferentially about the stent,

each undulating segment having a first end and a second end, the first end characterized by a plurality of end portions separated by gaps, the second end characterized by a plurality of end portions separated by gaps, the gaps on the first end circumferentially offset from the gaps on the second end and the end portions on the first end circumferentially offset from the end portions on the second end,

an undulating segment at a first end of the stent having a plurality of interconnecting elements extending from one end of the segment only to a segment adjacent thereto and an undulating segment at a second end of the stent having a plurality of interconnecting elements extending from one end of the undulating segment only to an undulating segment adjacent thereto,

a plurality of undulating segments which are located between the segments at the first and second ends of the stent having interconnecting elements extending from less than all of the end portions at both ends of the segments,

each interconnecting element having a proximal end extending from an end portion of one undulating segment and a distal end extending from an end portion of an undulating segment adjacent to said one undulating segment,

each interconnecting element having a proximal end and a distal end, the distal end circumferentially and longitudinally offset from the proximal end, the interconnecting elements oriented diagonally to the longitudinal axis of the stent.

Claim 91. (New) The stent of claim 90 wherein the stent is made of metal.

Claim 92. (New) The stent of claim 91 wherein the metal is a shape memory alloy.

Claim 93. (New) The stent of claim 90 wherein the stent forms a thin-walled tubular member.

Claim 94. (New) The stent of claim 90 formed as a self-expanding configuration.

Claim 95. (New) The stent of claim 90 formed as a mechanically expandable configuration.

Claim 96. (New) The stent of claim 90 wherein the interconnecting elements between adjacent segments are of the same length.